United States Department of Agriculture

Water and Climate Update

May 17, 2018

The Natural Resources Conservation Service produces this weekly report using data and products from the National Water and Climate Center and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

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Rapid snowmelt leads to flooding in Washington, Idaho, and Montana

Warm temperatures and a large snowpack have led to higher-than-normal snowmelt across a wide area of eastern Washington, northern Idaho, western Montana, and British Columbia. Residents along rivers and lakes in this region have seen homes and businesses inundated as rivers top flood stages. Some areas have yet to see the peak from the rising water.

The main stem of the Columbia River is also reaching flood stage in Portland, Oregon.

Refer to page 13 for a current map of stream gages recording flows at or above flood stage.

Photo: Flooding along the Kettle River in northeast Washington courtesy Bart Ausland, NRCS Northeast Washington Team Forester.

Related:

Officials: More to come this flood season in Western Montana – KPAX-TV (MT)

Hydrologists predict Bitterroot River has yet to peak, flooding to last weeks more – NBC (MT)

Eastern Washington flooding reaches emergency levels – CBS News

High Waters Threaten Towns Along The Okanogan And Other Snow-Fed Rivers – Spokane Public Radio (WA)

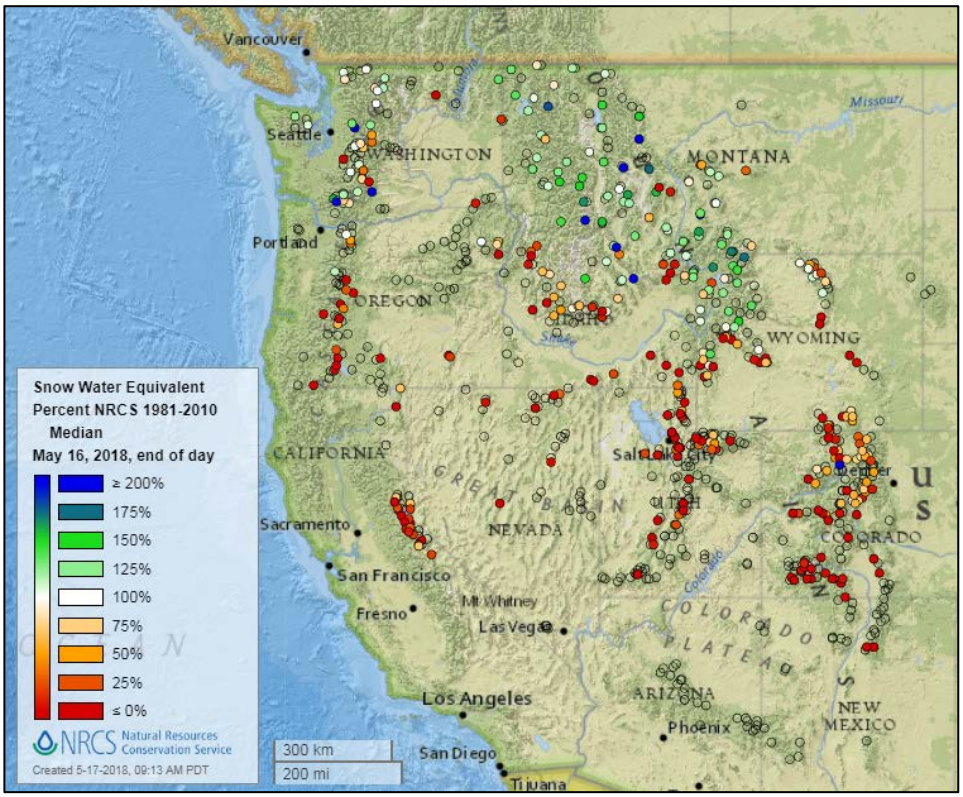
Gov. Inslee Declares State of Emergency – KPQ (WA)

Columbia River expected to approach flood stage – KHQ Right Now

Flooding Swamps Homes, Forces Evacuations in Washington, Montana, British Columbia – The Weather Channel

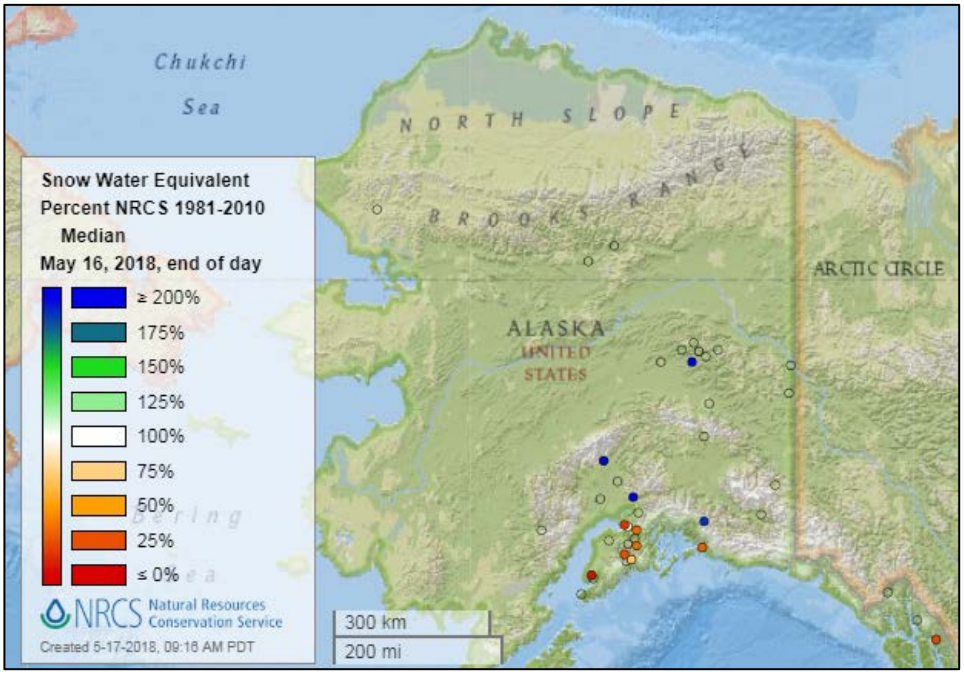
Snow

Current Snow Water Equivalent, NRCS SNOTEL Network



[Snow water equivalent percent of median map]

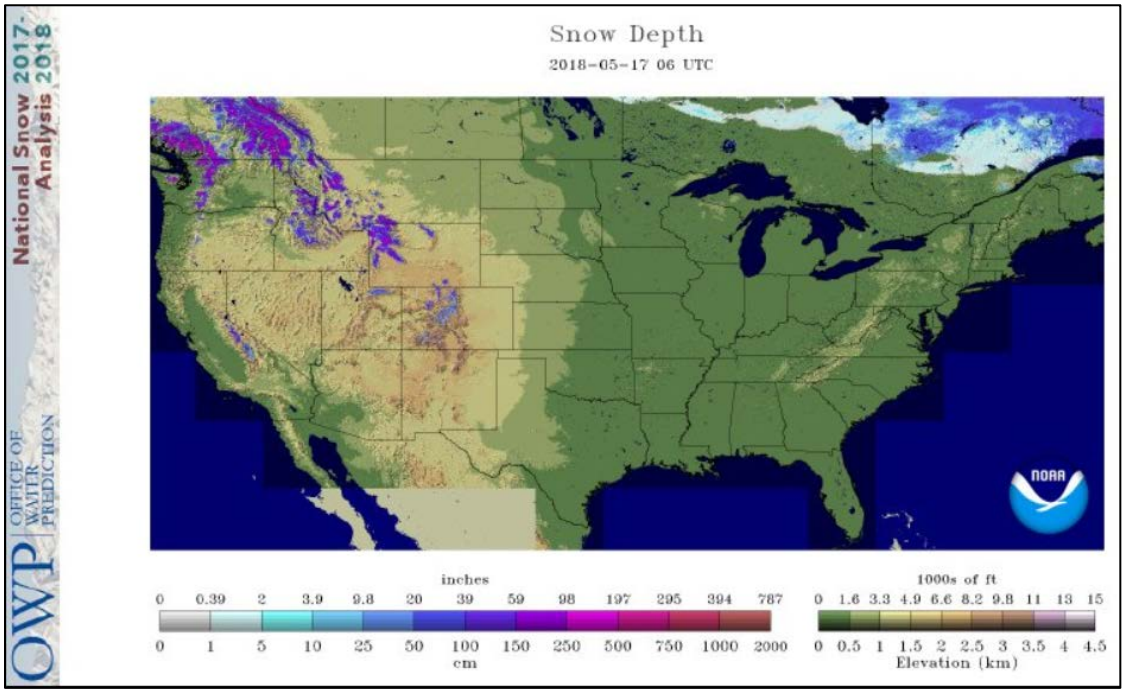
See also:
[Snow water equivalent values (inches) map]



[Alaska snow water equivalent percent of median map]

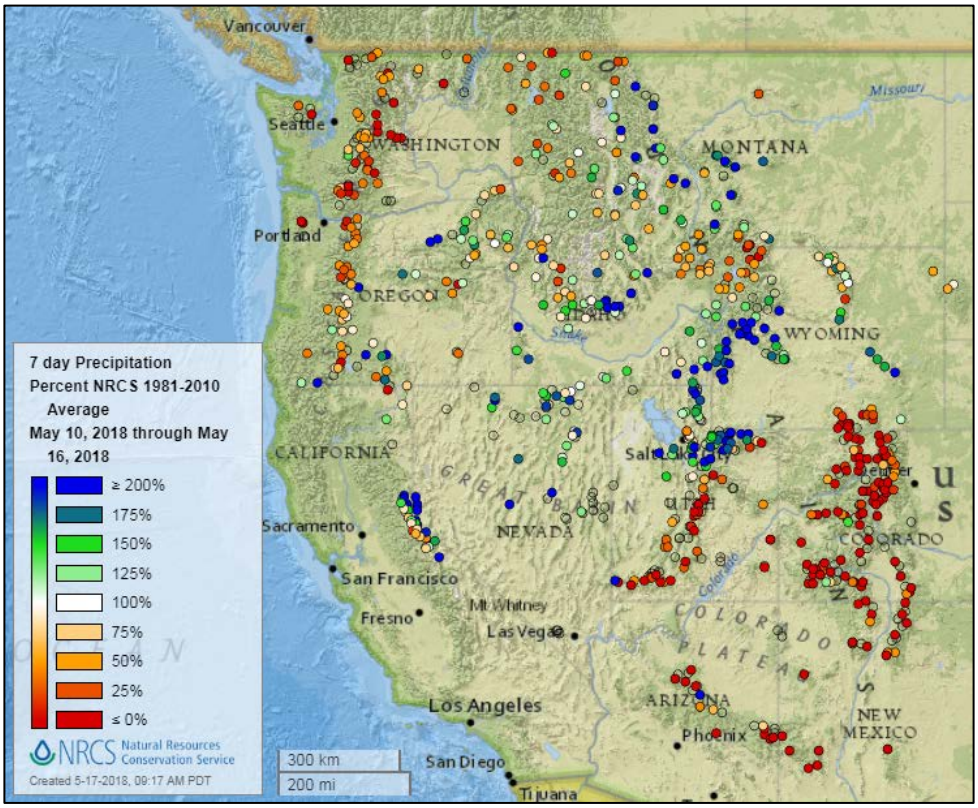
See also:
[Alaska snow water equivalent values (inches) map]

Current Snow Depth, National Weather Service Snow Analysis



Precipitation

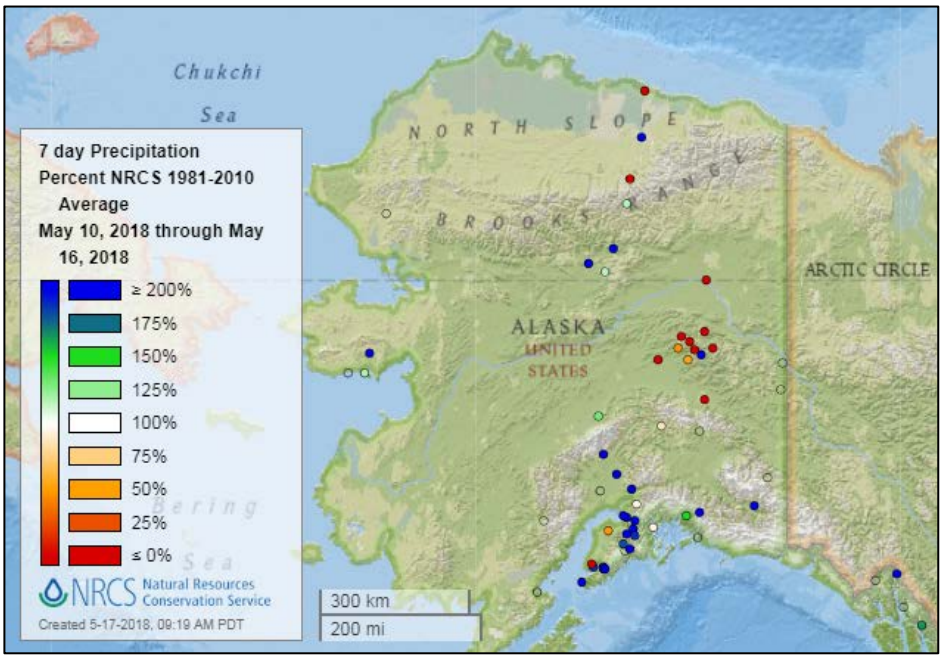
Last 7 Days, NRCS SNOTEL Network



7-day precipitation percent of average map

See also:
7-day total precipitation values (inches) map

[Alaska 7-day precipitation percent of average map]



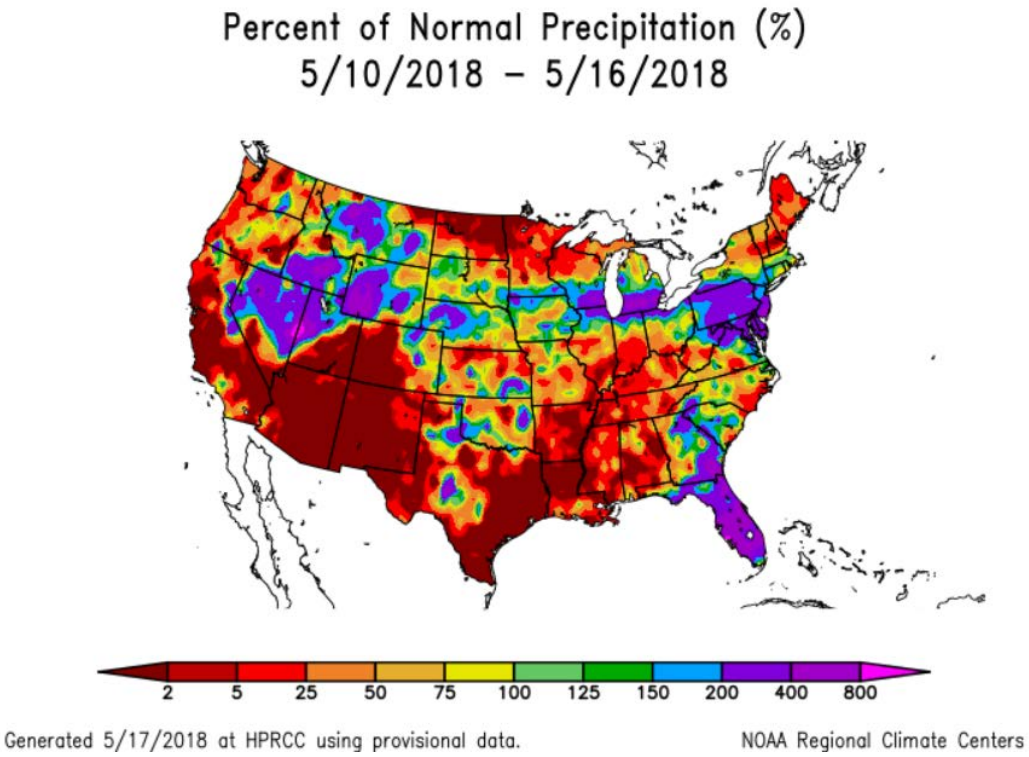
See also: [Alaska 7-day total precipitation values (inches) map]

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

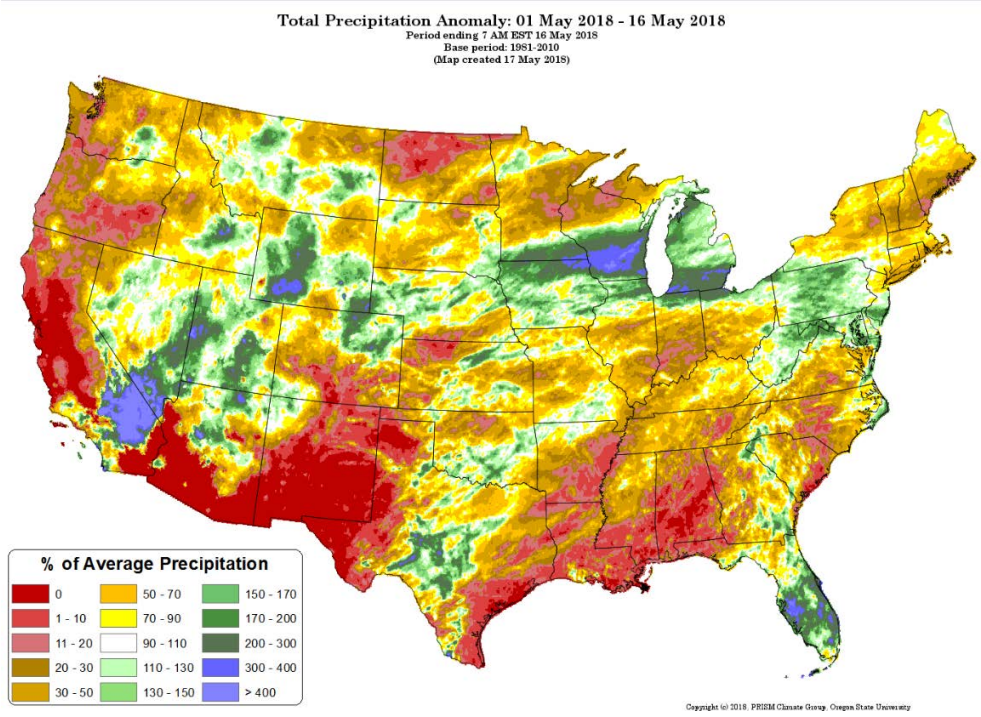
[7-day precipitation percent of normal map] for the continental U.S.

See also: [7-day total precipitation values (inches) map]



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

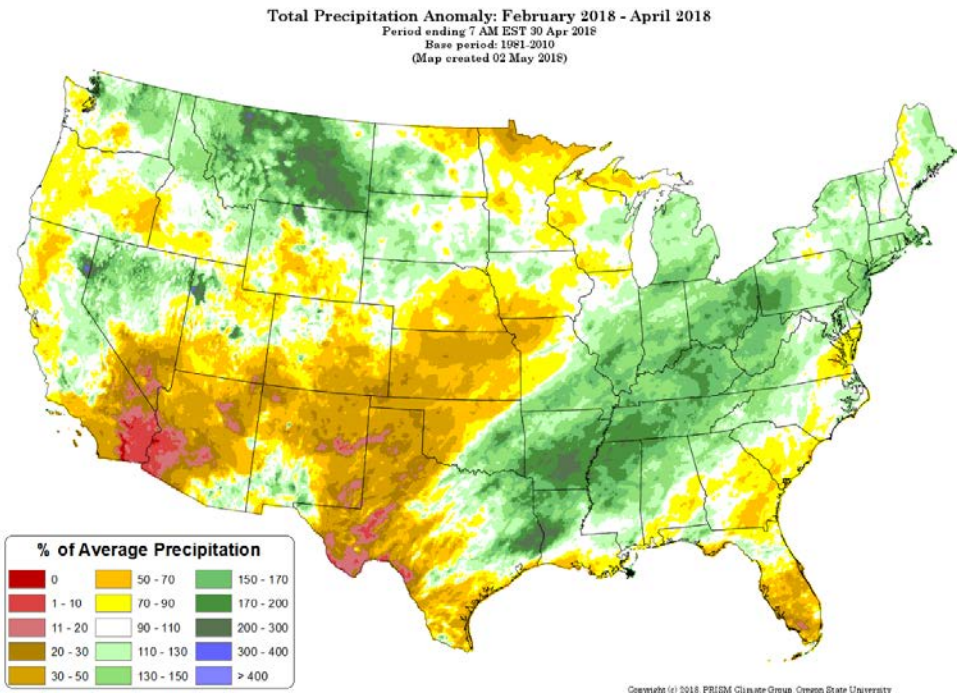


[Month-to-date national total precipitation percent of average map]

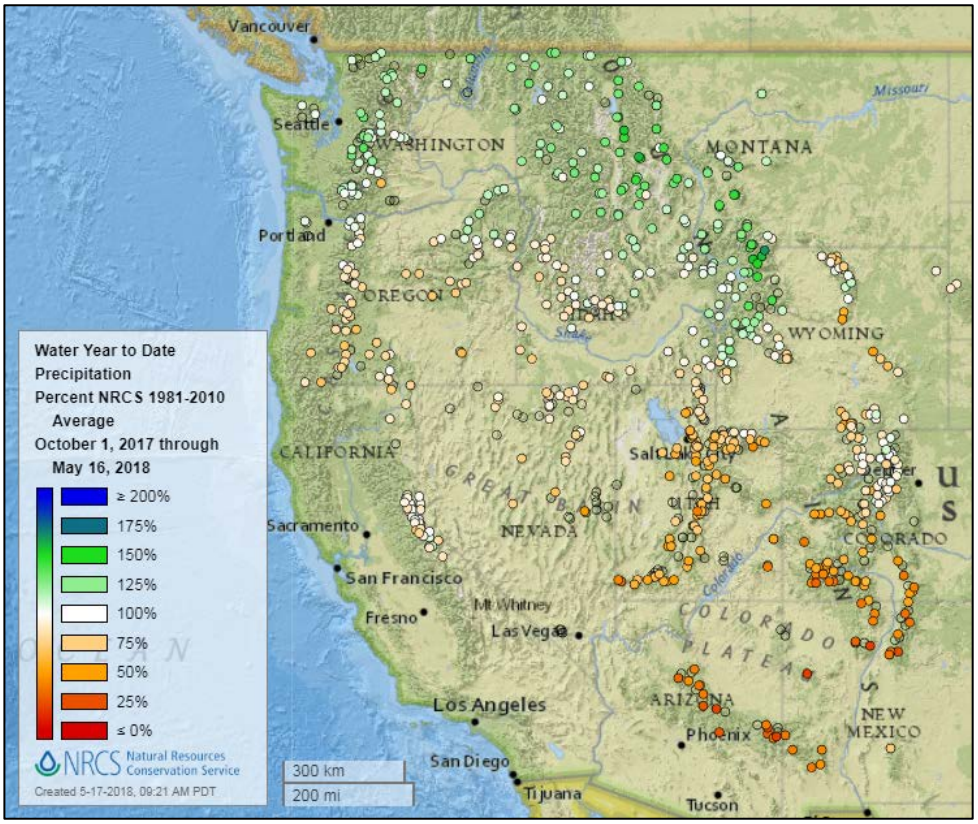
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[February through April 2018 total precipitation percent of average map]

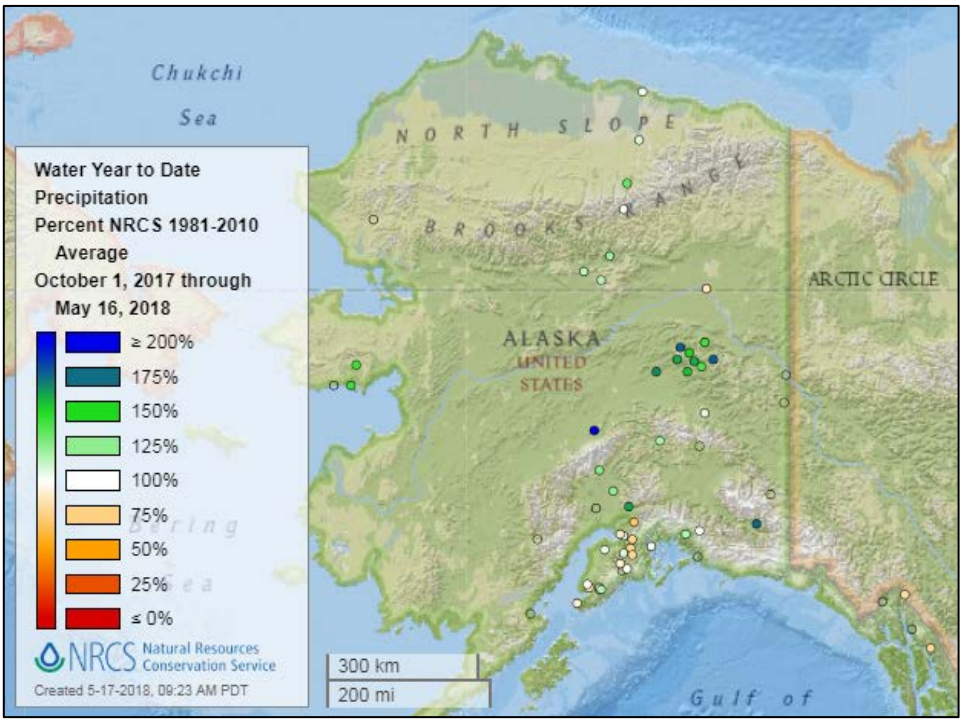


Water Year-to-Date, NRCS SNOTEL Network



[2018 water year-to-date precipitation percent of average map]

See also: [2018 water year-to-date precipitation values (inches) map]



[Alaska 2018 water year-to-date precipitation percent of average map]

See also: [Alaska 2018 water year-to-date precipitation values (inches) map]

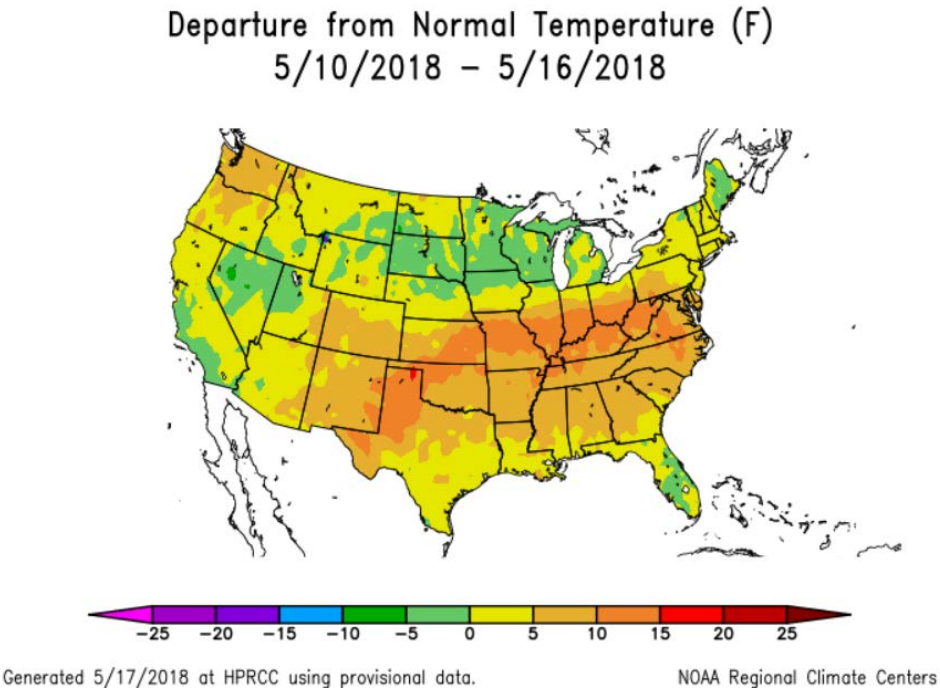
Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for the continental U.S.

See also: 7-day temperature (° F) map

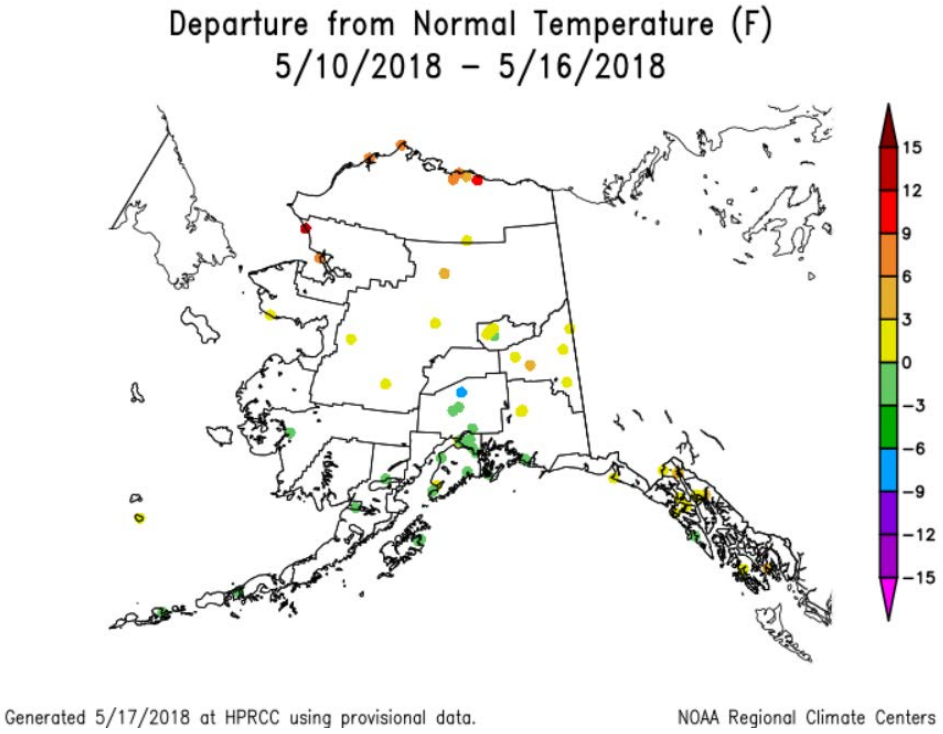


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

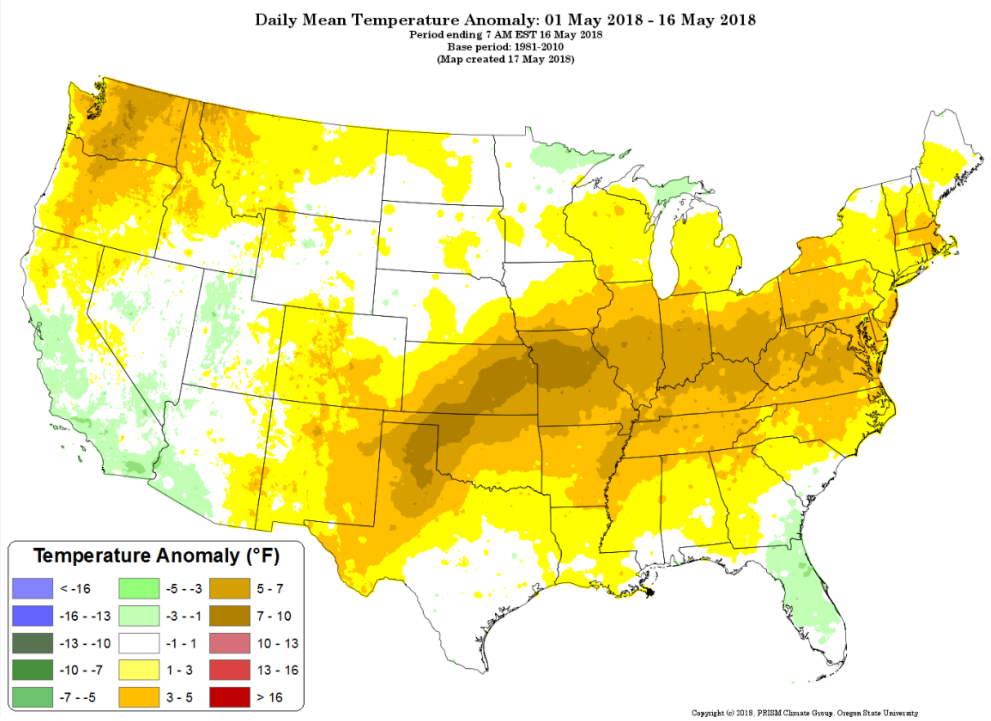
See also: 7-day temperature (° F) map



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

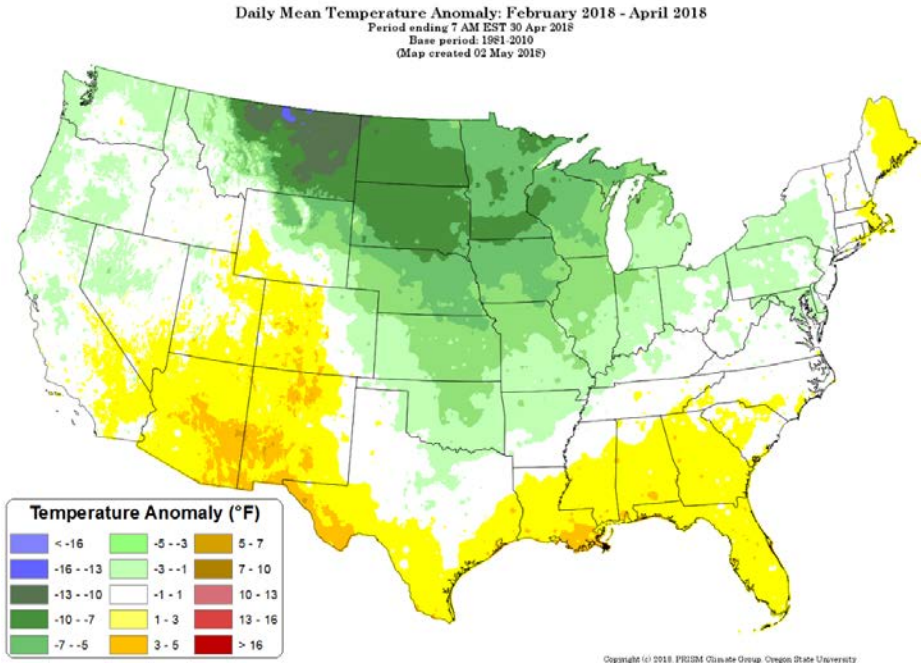
Source: PRISM

[Month-to-date national daily mean temperature anomaly map]



Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

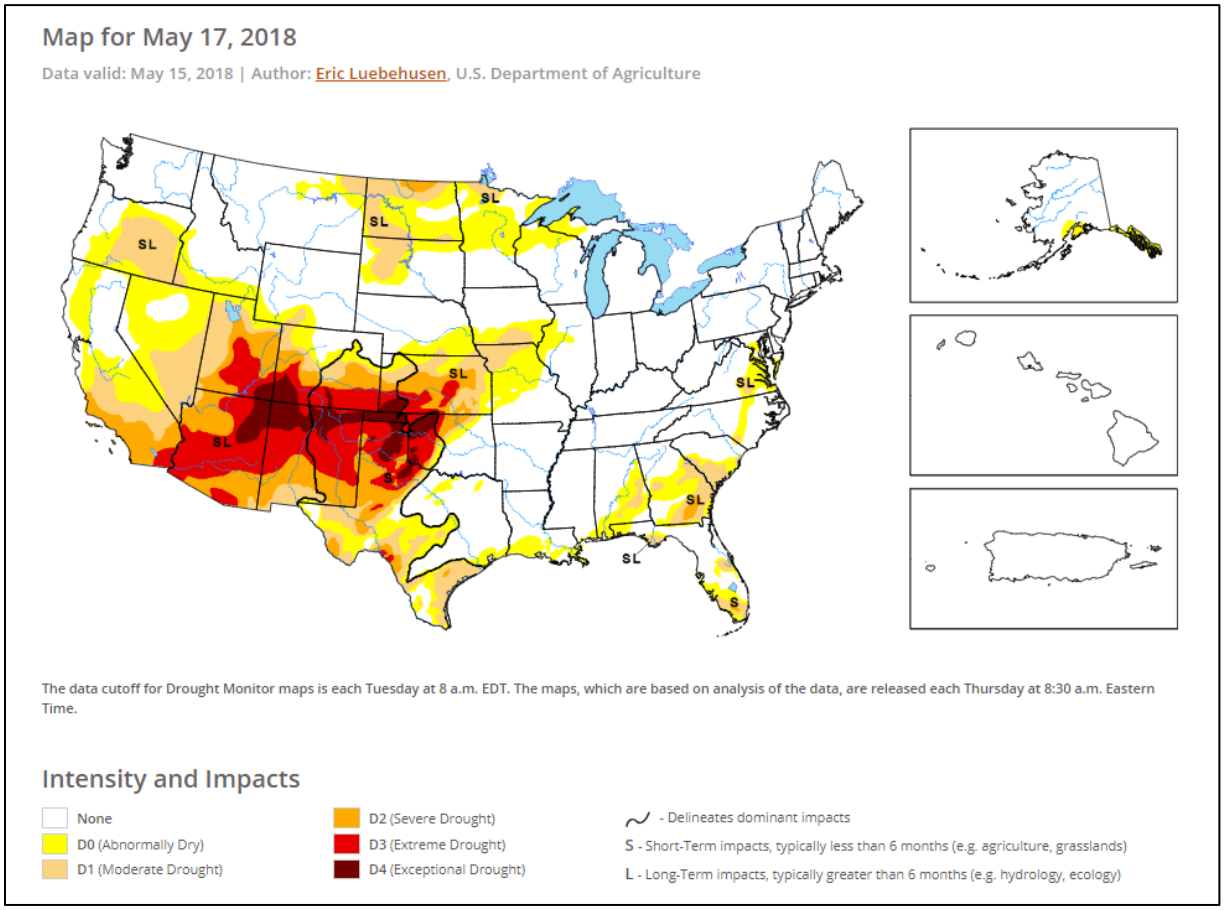


[February through April 2018 daily mean temperature anomaly map]

Drought

U.S. Drought Monitor Select map below.

U.S. Drought Portal Comprehensive drought resource.



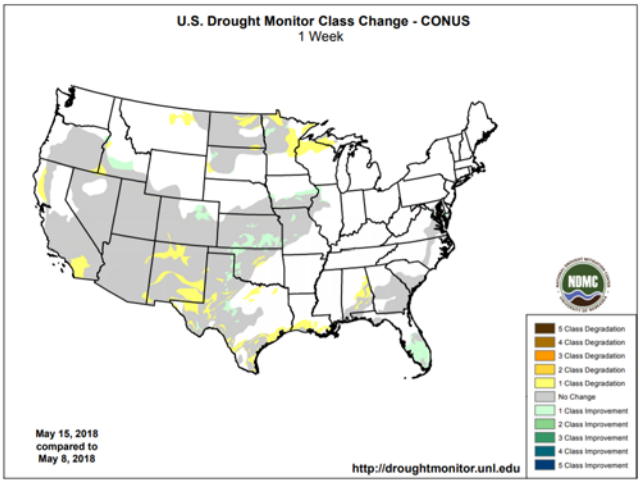
Current National Drought Summary, May 17, 2018

Author: Eric Luebehusen, U.S. Department of Agriculture

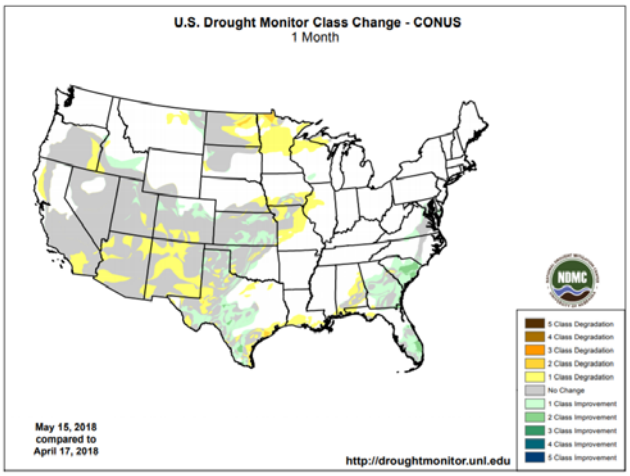
“During the 7-day period ending Tuesday morning, areas of locally heavy rain provided drought relief from the Plains to the East Coast, though much of the Southeast was dry. Toward the end of the time frame, an influx of tropical moisture associated with a slow-moving disturbance generated heavy to excessive rainfall in Florida, with rain associated with this broad area of unsettled weather overspreading the Southeastern and Mid-Atlantic States after the data cutoff for this week’s analysis; any rain that falls after 12z Tuesday (8 a.m., EDT) will be incorporated into the following week’s drought assessment. In contrast, dry, hot weather maintained or exacerbated drought from the southern High Plains into the Southwest. Likewise, despite the generally unsettled weather pattern, pockets of dryness and drought lingered or intensified in the Upper Midwest and northern Plains.”

Changes in Drought Monitor Categories over Time

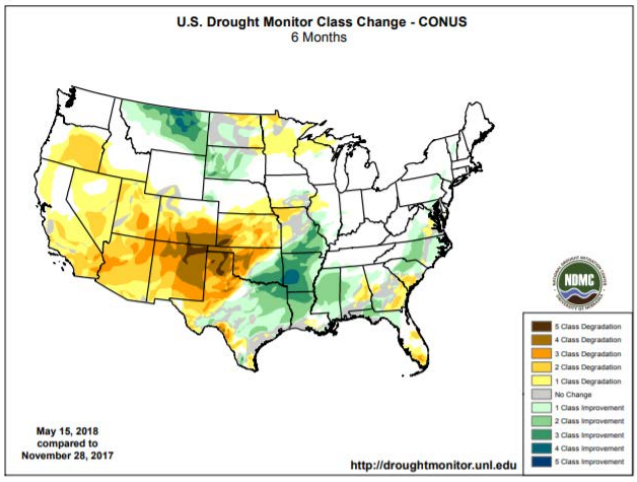
1 Week



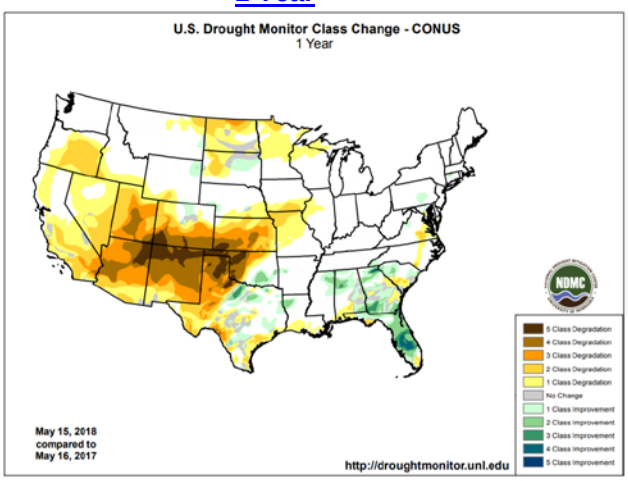
1 Month



6 Months



1 Year

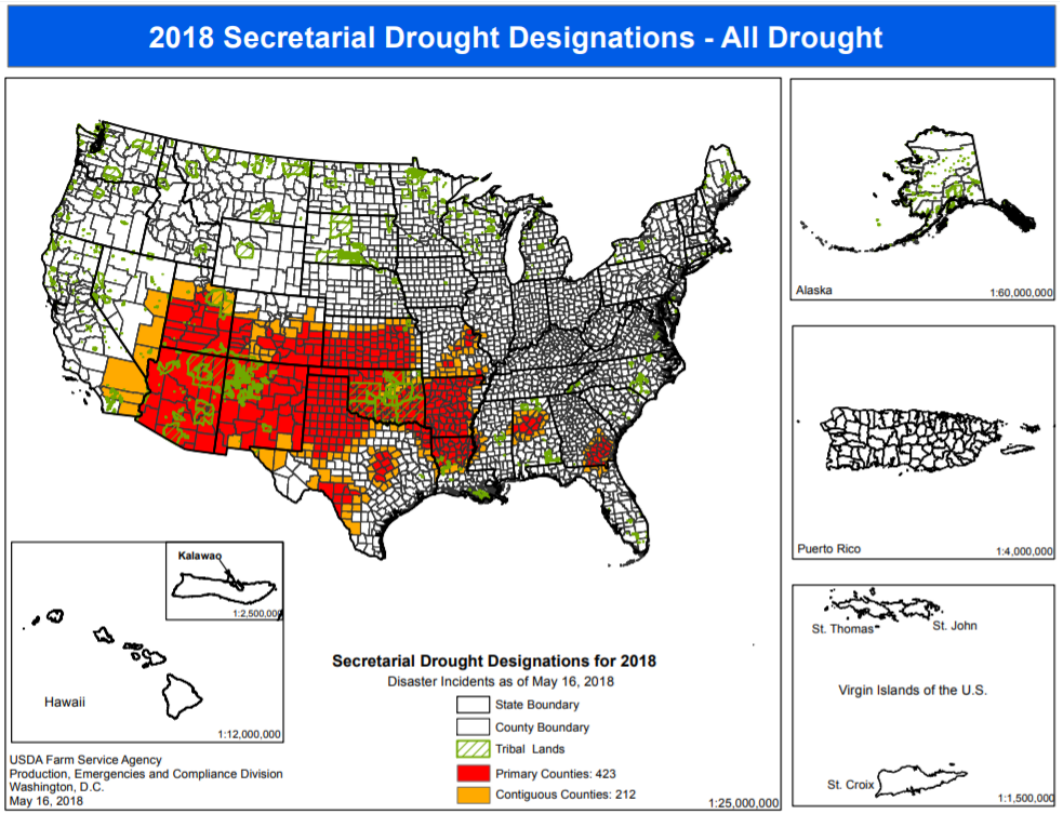


Changes in drought conditions over the last 12 months

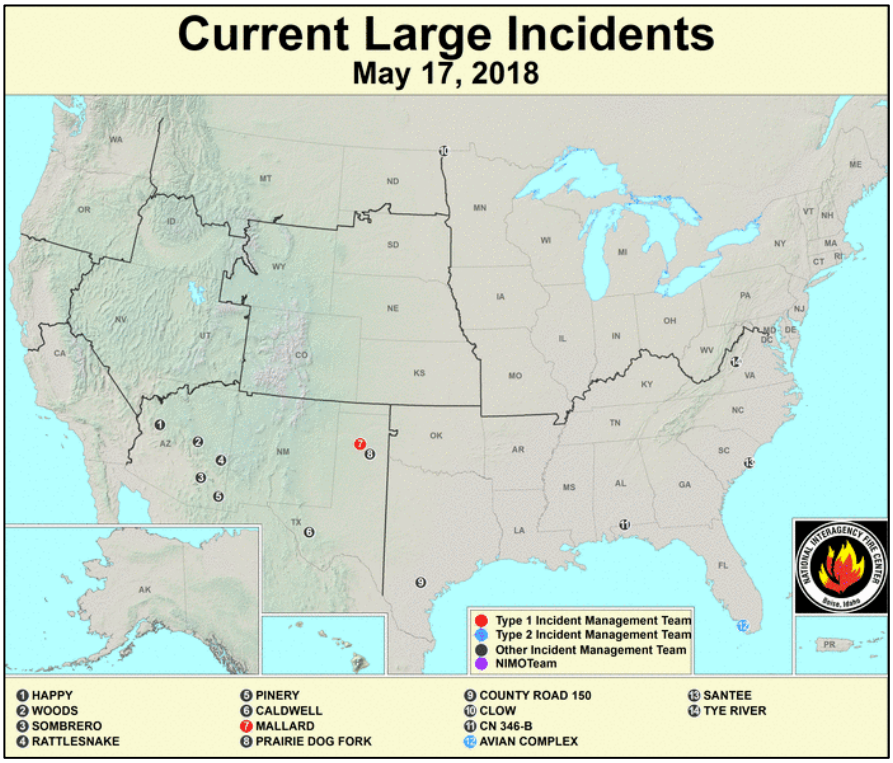
Highlighted Drought Resources

- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

USDA 2018 Secretarial Drought Designations



Wildfires: USDA Forest Service Active Fire Mapping



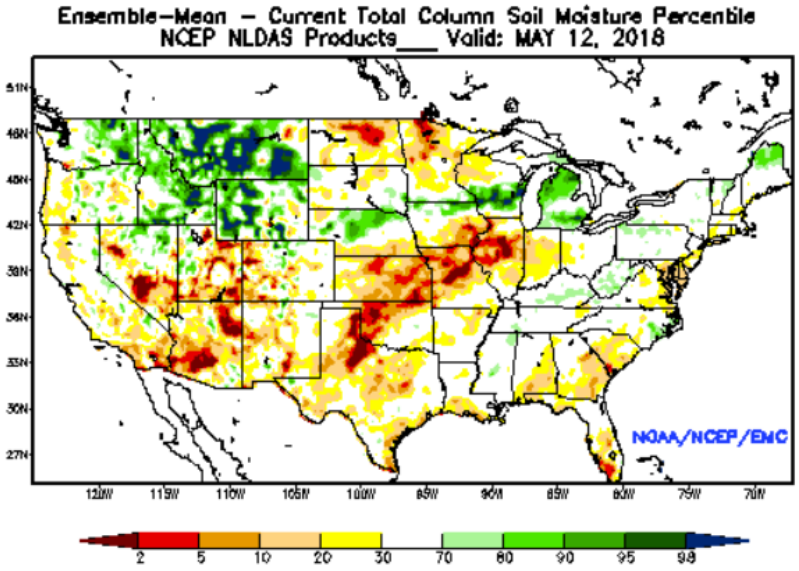
Highlighted Wildfire Resources

- National Interagency Fire Center
- InciWeb Incident Information System
- Significant Wildland Fire Potential Outlook

Other Climatic and Water Supply Indicators

Soil Moisture

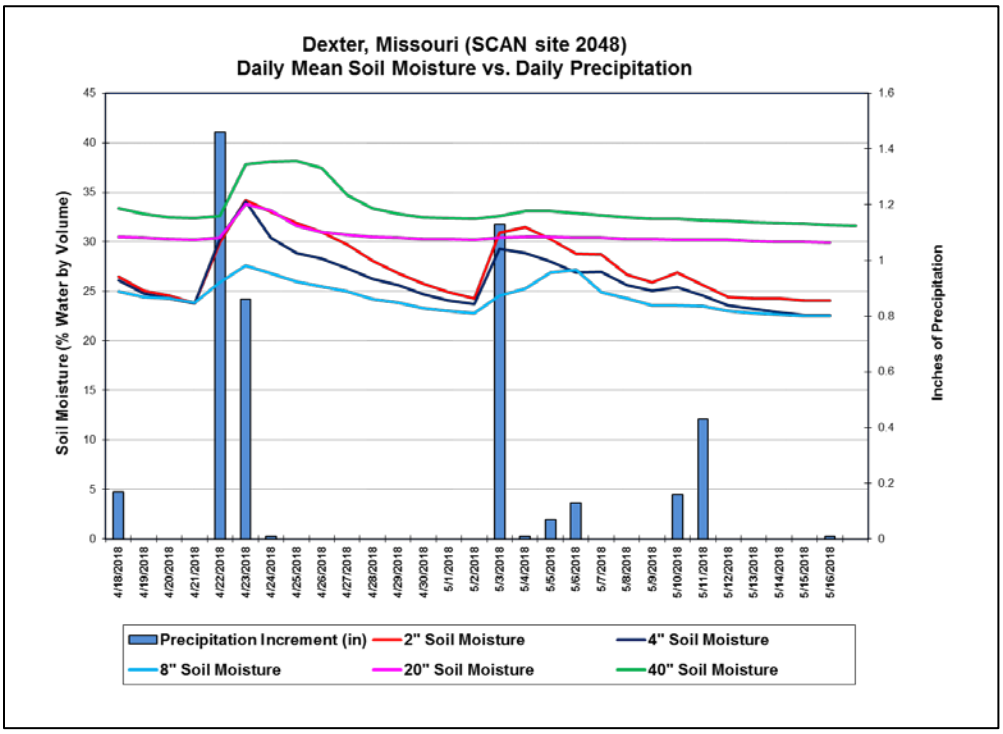
Source: NOAA National Centers for Environmental Prediction



Modeled soil moisture percentiles as of May 12, 2018.

Soil Moisture Data

Source: NRCS Soil Climate Analysis Network (SCAN)



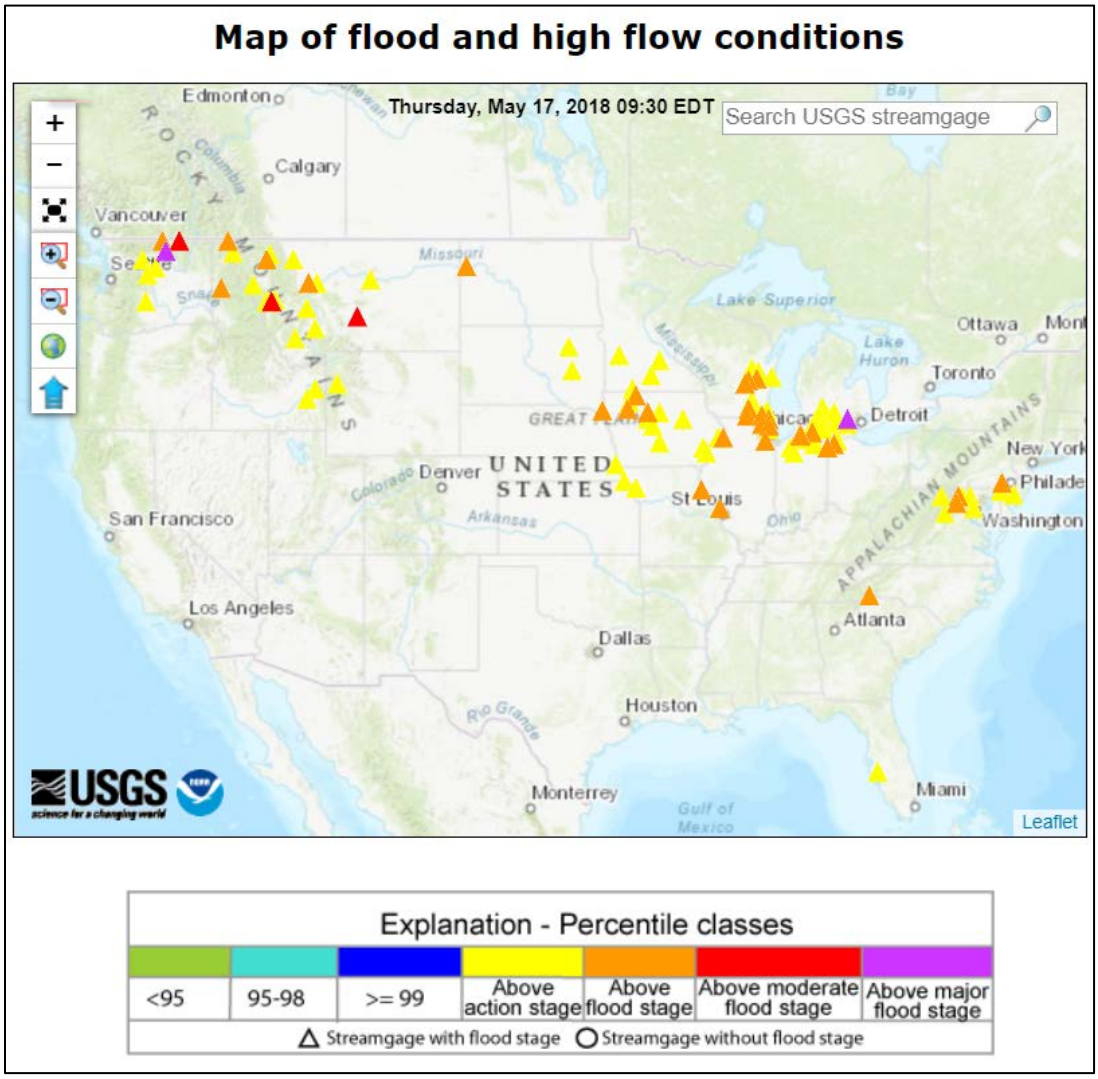
The chart shows precipitation and soil moisture for the last 30 days at the Dexter SCAN site 2048 in Missouri. This station experienced several precipitation events in the recent past. The largest 2-day event in the latter part of April caused all soil moisture depth sensors to increase. Likewise, the over 1-inch event on May 3rd created larger soil moisture increases at the shallow sensors and slight changes at the deeper sensors. Other smaller events of less than 0.5-inches showed a response only at the shallower depth sensors.

Soil Moisture Data Portals

- CRN Soil Moisture
- Texas A&M University North American Soil Moisture Database
- University of Washington Experimental Modeled Soil Moisture

Streamflow

Source: USGS

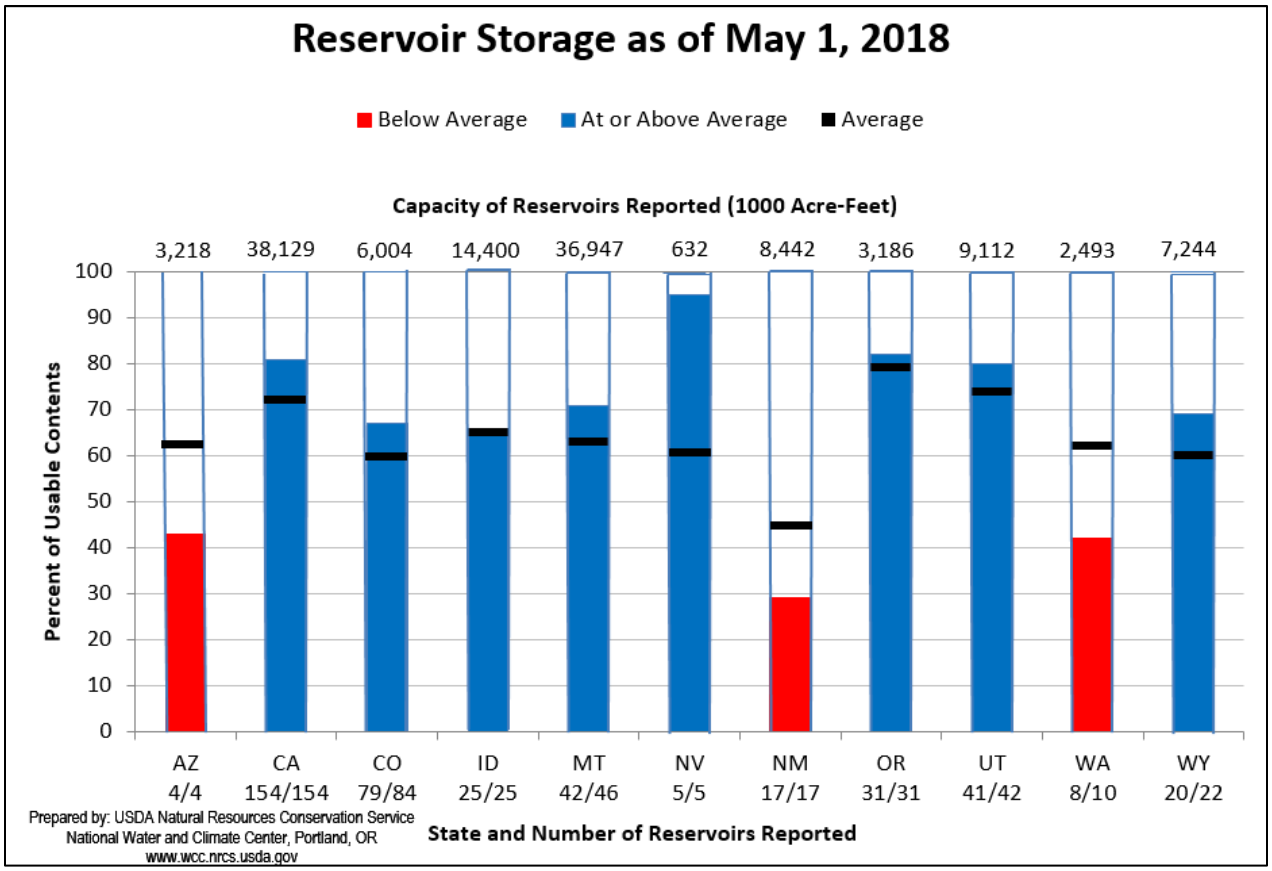


WaterWatch: Streamflow, drought, flood, and runoff conditions

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center

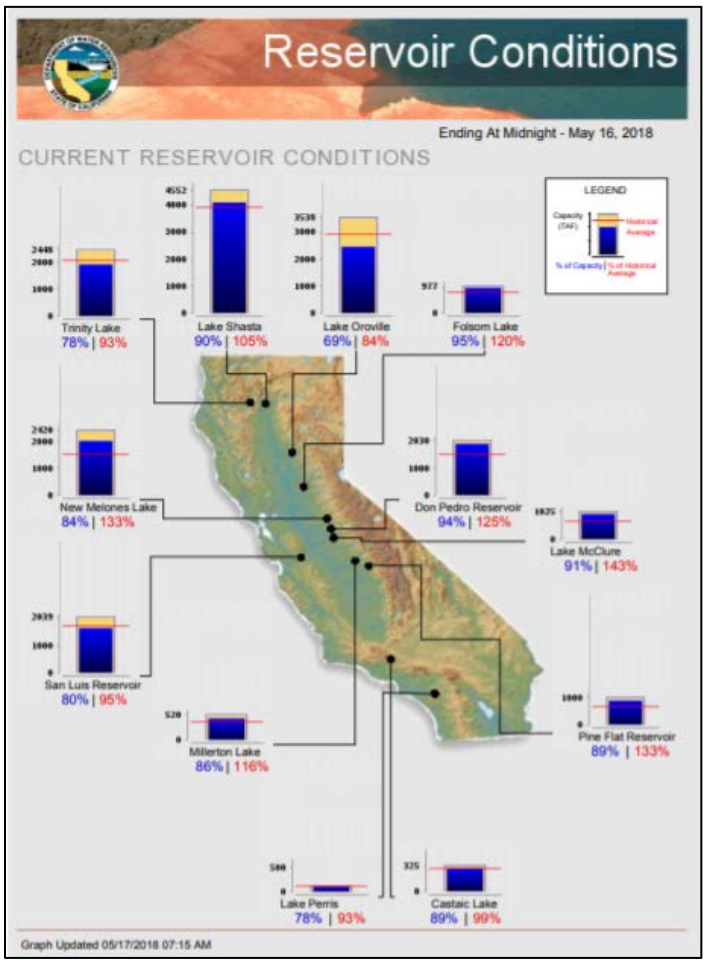


May 1 Reservoir Storage: Chart | Dataset

U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions

- Upper Colorado
- Pacific Northwest/Snake/Columbia
- Sevier River Water, Utah
- Upper Missouri, Kansas, Oklahoma, Texas

Current California Reservoir Conditions Source: California Department of Water Resources



Current California Reservoir Conditions

Short- and Long-Range Outlooks

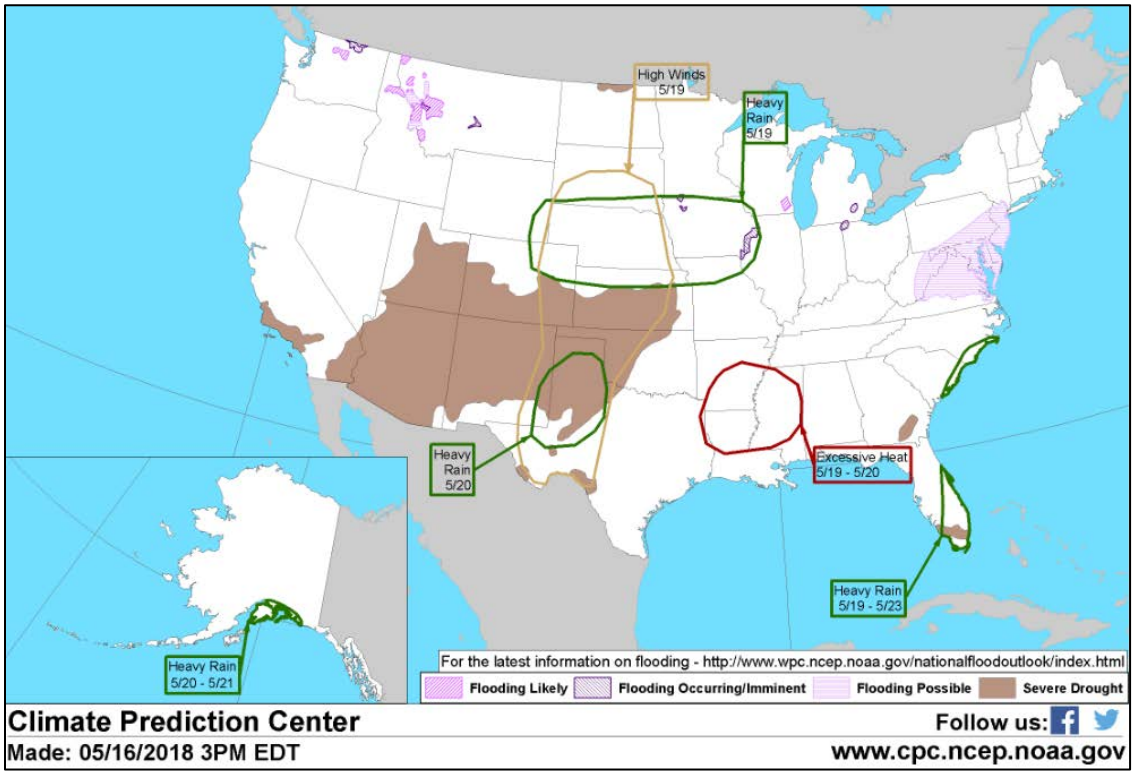
Agricultural Weather Highlights

Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

National Outlook, Thursday, May 17: "Tropical moisture over the eastern U.S. will continue to spark locally heavy showers into the weekend. Additional rainfall could reach 2 to 5 inches from Florida into the northern Mid-Atlantic States. Meanwhile, disturbances crossing the western and central U.S. will maintain showery, unsettled weather in several regions, including the Plains, Northwest, and upper Midwest. In fact, only southern California, the Desert Southwest, and the western Gulf Coast region will receive little or no rain. During the weekend, a quick surge of cool air could result in some frost across the northern Plains. The NWS 6- to 10-day outlook for May 22 – 26 calls for the likelihood of near- to above-normal temperatures and rainfall across most of the country. Warmth will be most prominent across the nation's mid-section, while drier-than-normal weather should be limited to central and southern Texas and from the Great Lakes region to New England."

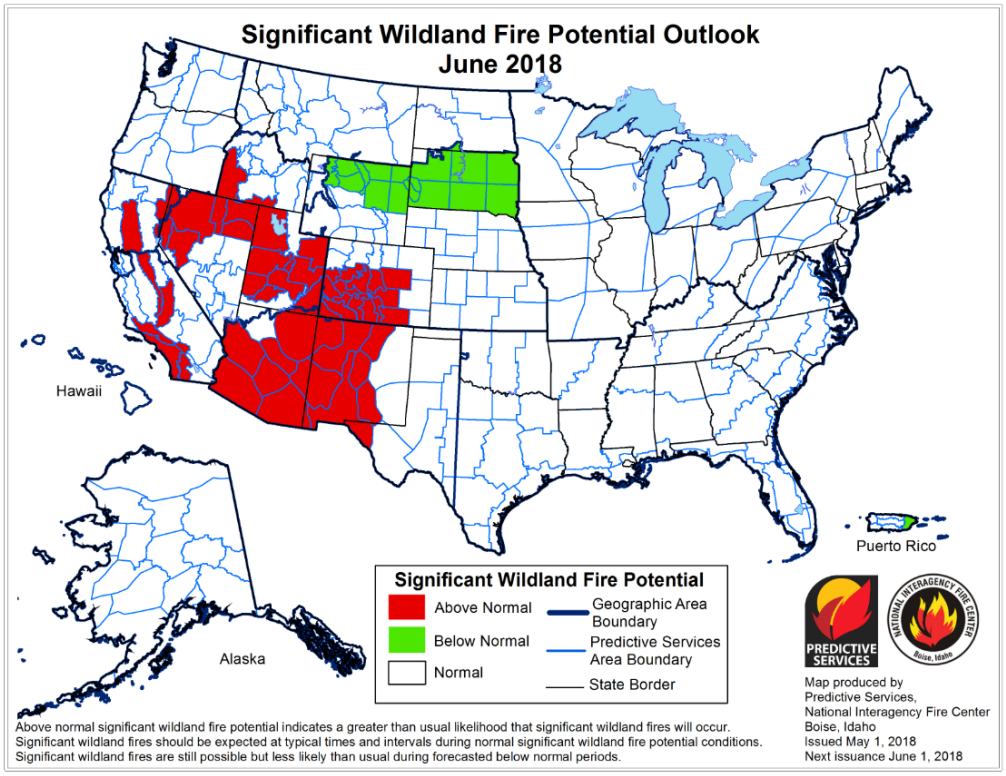
Weather Hazard Outlook May 19 – 23, 2018

Source: Climate Prediction Center



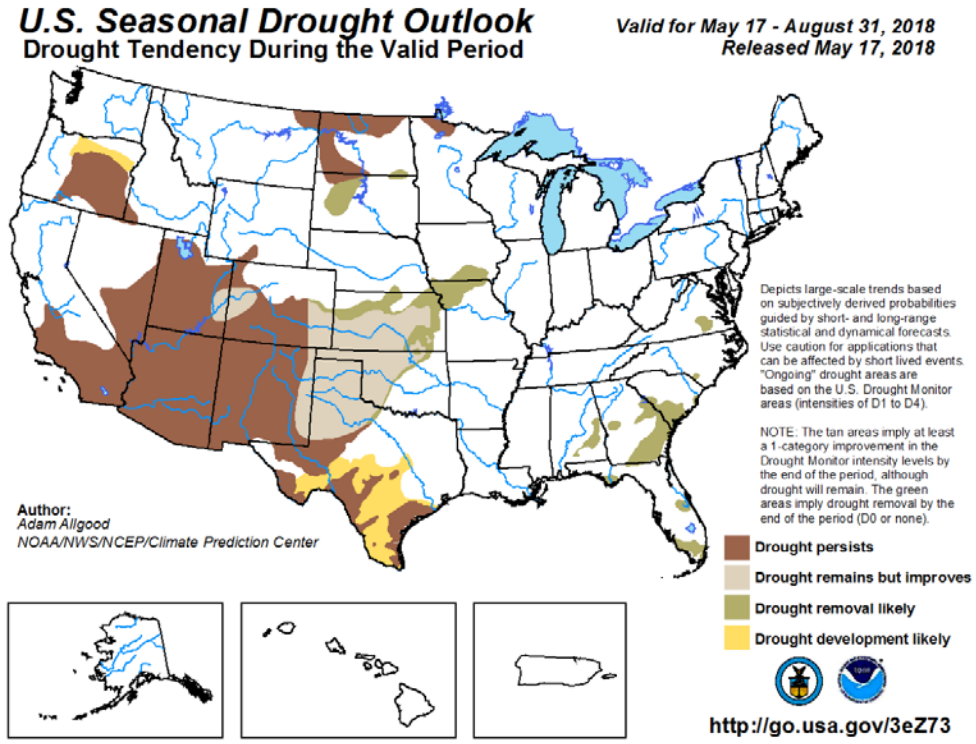
Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center



Seasonal Drought Outlook: May 17 – August 31, 2018

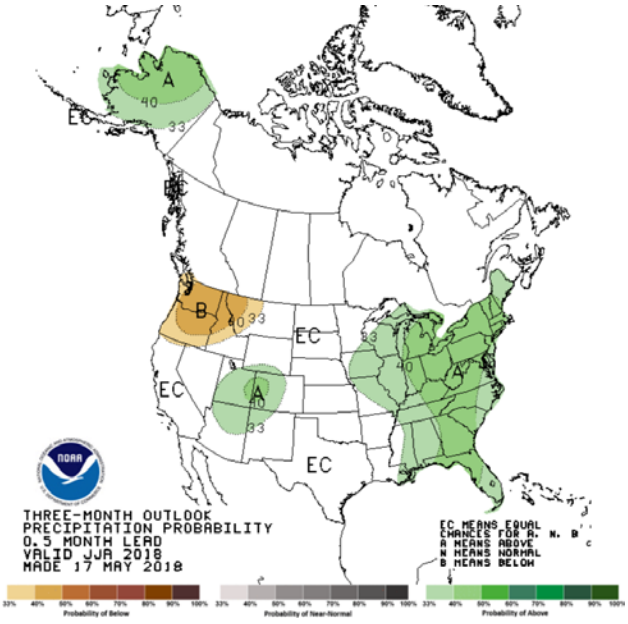
Source: National Weather Service



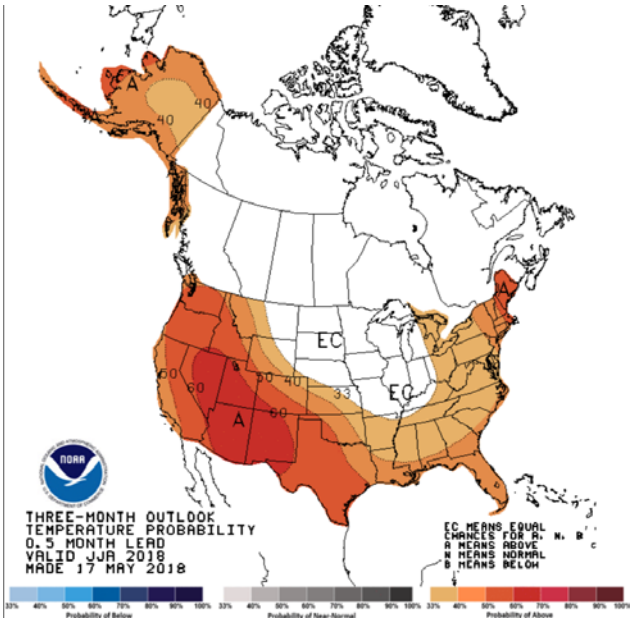
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



June-July-August (JJA) 2018 precipitation and temperature outlook summaries

More Information

The NRCS National Water and Climate Center publishes this weekly report. We welcome your feedback. If you have questions or comments, please contact us.